

What is claimed is:

1. A liquid crystal display, comprising:
 - a plurality of data lines;
 - a plurality of scanning lines crossing the plurality of data lines;
 - 5 a plurality of pixels positioned at a plurality of matrix-arranged unit areas enclosed by the scanning lines and the data lines, each of the plurality of pixels including a thin film transistor and a liquid crystal capacitor;
 - a plurality of switch electrodes separately accompanying
 - corresponding one of the scanning lines, each of the plurality of switch
 - 10 electrodes electrically connected to the liquid crystal capacitors of the all pixels shorting to the corresponding scanning line; and
 - wherein each of the potential of the switch electrodes is dividedly modulated and its modulation frequency is synchronized with the scanning frequency of the scanning line.
- 15 2. The liquid crystal display of Claim 1, further comprising a potential modulation module electrically connected to all the switch electrodes.
3. The liquid crystal display of Claim 2, wherein the potential modulation module outputs square pulses as potential modulation signals to
- 20 the switch electrodes, and the potential modulation signals applied to two the adjacent switch electrodes are opposite in phase.
4. The liquid crystal display of Claim 2, wherein the potential modulation module outputs square pulses as potential modulation signals to the switch electrodes grouped into a plurality of switch electrode sets, and
- 25 the potential modulation signals applied to two the adjacent switch electrode sets are opposite in phase.
5. The liquid crystal display of Claim 1, further comprising a plurality of switch transistors, each of which has a gate electrode

electrically connected to one of the scanning lines, a source electrode electrically connected to the switch electrode corresponding to the scanning line, and a drain electrode electrically connected to a modulation signal source.

5 6. The liquid crystal display of Claim 5, wherein the switch electrodes are grouped into at least a first switch electrode set connected to the switch transistors, which short to a first modulation signal source, and a second switch electrode set, which short to a second modulation signal source.

10 7. The liquid crystal display of Claim 6, wherein the first modulation signal source and the second modulation signal source separately output square pulses as potential modulation signals opposite in phase to the first switch electrode set and the second switch electrode set.

15 8. The liquid crystal display of Claim 1, wherein each of the switch electrodes is electrically connected the output terminal of a shift register, the output terminal, of the shift register which is connected to the previous switch electrode, is connected to the input terminal, of the shift register which is connected to the next switch electrode, and each of the shift registers has an inverter to reverse the potentials of the input terminal
20 and the output terminal.

9. The liquid crystal display of Claim 8, further comprising a modulation signal source is electrically connected to the input terminal, of the shift register which shorts to one of the switch electrodes at a first row.

25 10. The liquid crystal display of Claim 8, wherein each of the shift registers has a high potential pin shorting to an external high potential source, a low potential pin shorting to an external low potential source, and a clock pin shorting to the corresponding scanning line.

30 11. The liquid crystal display of Claim 10, wherein the output terminal of the shift register is at a low potential when the clock pin is selected by the scanning line and meanwhile the input terminal of the shift register is at a high potential.

12. The liquid crystal display of Claim 10, wherein the output terminal of the shift register is at a high potential when the clock pin is selected by the scanning line and meanwhile the input terminal of the shift register is at a low potential.